# Contactless Readers for PIV Solutions

**MEETS NIST ASSURANCE-LEVEL REQUIREMENTS FOR THESE AREAS:**

| "Unrestricted" Areas | "Controlled" Areas | "Limited" Areas | "Exclusion" Areas |
|---|---|---|---|

## CONTACTLESS READERS FOR "CONTROLLED" AREAS ENABLE HIGH SECURITY, INTEROPERABILITY AND COMPLIANCE

- **Part of an integrated solution from a single, trusted provider** – Enable FIPS 201 compliance per NIST SP 800-116 guidelines and the TWIC Reader Specification.

- **Contactless reader solutions for "Controlled" security areas** – Meets NIST's "Controlled" security area assurance-level requirements with a single-factor authentication.

- **Support multiple card types** – Works with PIV, PIV-I, CAC, CIV (a.k.a., PIV-C), TWIC, FRAC, iCLASS® and HID Prox® cards for easy, phased transitions from legacy technology to new PKI-enabled smart cards. .

HID Global's pivCLASS Government Solutions portfolio enables facilities to upgrade their existing physical access control system (PACS) to achieve FIPS 201 compliance.

**The PIV-enabled contactless readers and their proximity** – enabled versions deliver the "Controlled" assurance level defined in the National Institute of Standards and Technology (NIST) SP 800-116

guidelines when used with the pivCLASS Authentication Module (PAM) to perform a single-factor authentication check.

**CHUID + VIS Authentication** – The system tests the signature on the PIV Card Holder Unique IDentifier (CHUID) data object.  The CHUID signature check ensures the card is authentic (came from a valid issuer) and has integrity (has not been altered).

Because the CHUID is a "free read" and will be transmitted unencrypted to any reader, it could be possible for perpetrators to capture a PIV card's CHUID and create a counterfeit card. However, the required visual check (VIS) of the card secures against this threat by making it possible to identify cards that have been counterfeited or altered.*

**CAK Authentication** – The full duplex version of these contactless PIV-enabled readers work with the PAM to perform a PKI challenge-response test in addition to a signature check to validate the card authentication key (CAK).  The challenge-response test ensures the public key in the card authentication certificate is bound to the private key on the card. This CAK authentication secures against cards that have been counterfeited, altered, copied or cloned. The half duplex version of these readers supports the OSDP protocol to half duplex authentication modules.

HID Readers for PIV Solutions are guaranteed to meet the stringent specifications for operation, reliability and interoperability with other Genuine HID™ products.

## ADDITIONAL PRODUCT FEATURES:

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\* Per SP 800-116, to achieve "Controlled" assurance, the CHUID read must be combined with a visual check (VIS) of the identification card.

**HID**

| Model Number | Reader Series | HID Signo™ | HID pivCLASS® |
|---|---|---|---|
| **General Information** | |  |  |
| | Base Model & Form Factors | 20 / 20K- mullion<br>40 / 40K - wallswitch | R10 / RP10 - mullion<br>R40 / RP40 / RK40 / RPK40 - wallswitch |
| **Credential Technology** | 13.56 MHz Credential Compatibility | PKI-Based FIPS-201 Credentials including PIV, PIV-I, CIV, CAC, TWIC and FRAC<br>Secure Identity Object (SIO) on iCLASS Seos, iCLASS SE, MIFARE DESFire EV1 and MIFARE<br>Classic standard iCLASS Access Control Application ISO14443A (MIFARE) CSN | |
| | 125 kHz Credential Compatibility | HID Proximity, EM4102 Proximity, AWID | |
| **Device Characteristics** | Mounting | Mullion, single or double-gang switch box | |
| | Connector Type | Pigtail Cable – 18 inch (0.5 m)<br>Terminal Block – flush mount | Pigtail Cable – 18 inch (0.5 m)<br>Terminal Block - protruding mount |
| | Color | Black Bezel / Silver Trim<br>(Black Trim available as an accessory) | Black Bezel Only |
| | Material Housing | Polycarbonate – UL94 V0 rated | |
| | Operating Voltage Range | 12 VDC | 5 - 16 VDC |
| | Current Draw (max) | 250 mA | 200 mA |
| | Device Input & Output | Input: Tri-color LED, Buzzer, Hold<br>Output: Tamper Relay | Input: Tri-color LED, Buzzer, Hold<br>Output: Open Collector – TTL |
| | Operating Temperature Range | -35° C to +66° C (-31° F to +150° F)<br>0% to 95% non-condensing | |
| | Storage Temperature Range | -40° C to +85° C (-40° F to +185° F) | -55° C to +85° C (-67° F to +185° F) |
| | Environmental Rating | UL294 Outdoor and Indoor rated | |
| | Ingress Protection | IP65 | IP55;<br>IP65 if installed with optional gasket<br>(IP65GSKT) |
| | Controller Communication | Half duplex supports OSDP protocol and HID pivCLASS protocol. Wiegand, Clock & Data integrated into base hardware. | Full duplex supports HID pivCLASS protocol, Half duplex supports OSDP and HID pivCLASS protocol . Wiegand, Clock & Data integrated into base hardware. |
| | Cable Distance 1 | RS485 for communication (500 ft [152m], 22AWG), (300 ft [91m], 24AWG); two wires for power (500 ft [152m], 22AWG) | |
| **Device Features** | Device Management | HID Reader Manager, OSDP configuration | HID reader configuration cards |
| | Intelligent Power Mode | Yes | |
| | Velocity Attack Detection | Yes | |
| | Metal Environment Optimization | Yes – surface detection feature automatically calibrates read range | No |
| | FIPS-201 Outputs | Wiegand and OSDP:  CHUID & UUID outputs per reader configuration. CAK, SM Auth, High Assurance Authentication and PKI supported when connected to a pivCLASS Authentication Module (PAM) or controller using HID pivCLASS Embedded Authentication. | |
| **Certifications and Terms** | Certifications | FIPS-201 & FICAM Certified 2  , UL294, FCC, CB, CE, - see www.hidglobal.com/certifications | |
| | Warranty | Limited Lifetime | |



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